

We claim

1. An aqueous disinfecting solution having a pH of from 0.6 to 7 and comprising:
 - (a) hydrogen peroxide in a concentration of from 0.01 to 6% w/w, based on the total weight of the solution; and
 - (b) at least one component chosen from cyclic carboxylic acids and aromatic alcohols, in a concentration of from 0.01 to 8% w/w, based on the total weight of the solution.
2. A solution according to claim 1 wherein said at least one component is present in a concentration of from 0.1 to 4% w/w, based on the total weight of the solution.
3. A solution according to claim 2 wherein said at least one component is present in a concentration of from 0.1 to 2.5% w/w, based on the total weight of the solution.
4. A solution according to claim 1 wherein said aromatic alcohol is benzyl alcohol.
5. A solution according to claim 1 wherein said cyclic carboxylic acid chosen from 2-furan carboxylic acid, benzoic acid and salicylic acid.
6. A solution according to claim 1 comprising at least one nonionic surfactant in a concentration of from 0.005 to 3% w/w, based on the total weight of the solution.
7. A solution according to claim 6 wherein said at least one nonionic surfactant is present in a concentration of from 0.01 to 3% w/w, based on the total weight of the solution.
8. A solution according to claim 7 wherein said at least one nonionic surfactant is present in a concentration of from 0.01 to 1% w/w, based on the total weight of the solution.
9. A solution according to claim 6 wherein said at least one nonionic surfactant is chosen from (a) ethoxylated alcohols and alkylglycosides having a hydrophile lyophile balance from 5 to 15; and (b) a sufficiently water-soluble block copolymer of ethylene oxide or propylene oxide.

10. A solution according to claim 9 wherein said at least one nonionic surfactant is a sufficiently water-soluble block copolymer of ethylene oxide or propylene oxide, a C6-C10 alkyl, 3.5 moles of ethylene oxide (EO) alcohol ethoxylate, or a combination thereof.
11. A solution according to claim 1 comprising at least one cation sequestering agent in a concentration of from 0.01 to 6% w/w, based on the total weight of the solution.
12. A solution according to claim 11 wherein said cationic sequestering agent is present in a concentration of from 0.05 to 2% w/w, based on the total weight of the solution.
13. A solution according to claim 11 wherein said cation sequestering agent is 1-hydroxyethylidene-1,1-diphosphonic acid.
14. A solution according to claim 1 comprising at least one anionic surfactant chosen from (a) alkali metal, alkaline earth metal, ammonium or alkylamine salts of C8-C16 alkyl benzene sulfonic acids; (b) C8-C18 alkyl sulfonic acids; (c) C8-C16 alkyl sulfates; and (d) C6 – C12 alkyl diphenyl sulfonates, in a concentration of from 0.01 to 10% w/w, based on the total weight of the solution.
15. A solution according to claim 14 wherein said at least one anionic surfactant is present in a concentration of from 0.01 to 6% w/w, based on the total weight of the solution.
16. A solution according to claim 15 wherein said at least one anionic surfactant is present in a concentration of from 0.05 to 3% w/w, based on the total weight of the solution.
17. A solution according to claim 14 wherein said at least one anionic surfactant is chosen from alkyl benzene sulfonic acids and C6 – C10 alkyl diphenyl sulfonates.
18. A solution according to claim 17 comprising at least one of a C6 alkylated sulfonated diphenyl oxide sodium salt, a C10 alkylated sulfonated diphenyl oxide sodium salt, and dodecyl benzene sulfonic acid.
19. A solution according to claim 1 having a pH of from 0.6 to 5.

20. A solution according to claim 19 having a pH of from 2 to 4.
21. A solution according to claim 1 comprising at least one buffer in an amount effective to buffer the solution to said pH.
22. A solution according to claim 21 wherein said at least one buffer is chosen from phosphoric acid, citric acid, glycolic acid, sodium carbonate, calcium carbonate, potassium hydroxide, sodium hydroxide, ethanolamine and lactic acid.
23. A solution according to claim 1 comprising at least one corrosion inhibitor in a concentration of from 0.001 to 15% w/w, based on the total weight of the solution.
24. A solution according to claim 23 wherein the at least one corrosion inhibitor is present in a concentration of from 0.01 to 5% w/w, based on the total weight of the solution.
25. A solution according to claim 24 wherein the at least one corrosion inhibitor is present in a concentration of from 0.01 to 1% w/w, based on the total weight of the solution.
26. A solution according to claim 23 wherein the at least one corrosion inhibitor is chosen from 1,2,3 benzotriazole, sodium molybdate, sodium nitrite, sodium bisulfate, sodium metabisulfate, chromates, borates, phosphates, polyphosphates, sodium benzoate, sodium gluconate and sodium silicate.
27. A solution according to claim 1 wherein said hydrogen peroxide is present in a concentration of from 0.25 to 4 % w/w, based on the total weight of the solution.
28. A solution according to claim 1 comprising a hydrotrope in a concentration of from 0.01 to 15% w/w, based on the total weight of the solution.
29. A solution according to claim 28 wherein said hydrotrope is sodium xylene sulfonate.
30. A solution according to claim 1 comprising a solvent in a concentration of from 0.01 to 15% w/w, based on the total weight of the solution.

31. A solution according to claim 30 wherein said solvent is a glycol or glycol ether.
32. A concentrated, aqueous, acidic disinfecting solution which may be diluted with water to provide a solution according to claim 1.
33. A solution according to claim 32 wherein the combined amount of cyclic carboxylic acid and aromatic alcohol is up to 30% w/w, based on the total weight of the solution.
34. A dry particulate composition dissolvable in water to produce an aqueous disinfecting solution according to claim 1.
35. A composition according to claim 34 comprising at least one hydrogen peroxide releasing component chosen from sodium percarbonate, sodium perborate monohydrate, and sodium perborate tetrahydrate.
36. A method of cleaning equipment in place comprising the steps of:
 - (a) providing a solution according to claim 1; and
 - (b) circulating said solution in place through said equipment at a temperature of from 20 to 60 degrees Celsius.
37. The use of a solution according to claim 1 for inactivating fungi and mycobacteria.